Application Number; 10/084, 072
Group Art Unit Number; 3635
Filing date; 02/27/2002
Name of the examiner who prepared the most recent office action;
Mr. MCDERMOTT, KEVIN
Title of invention;
SUPPORT STRUCTURE FOR ISOLATIONG EARTHQUAKE MOTIONS

## WHAT I CLAIM IS;

A support structure for isolating earthquake motions, comprising a pressure-receiving steel plate of concave-curved surface adjusted with a bottom of a structure and a pressure-applying steel plate of convex-curved surface oppositing facing to said concave-curved surface, a means of interposing two types of plurallities of steel balls between said pressure-receiving curved surface and pressure-applying curved surface, one type of said plurality of steel balls are made with (less accuracy) smaller diameter than that of other

Application Number; 10/084, 072
Group Art Unit Number; 3635
Filing date: 02/27/2002
Name of the examiner who prepared the most recent office action;
Mr. MCDERMOTT, KEVIN
Title of invention;
SUPPORT STRUCTURE FOR ISOLATIONG EARTHQUAKE MOTIONS

group of balls, a means of mounting said two groups of balls on said pressure-receiving curved surface steel plate to come in point contact in all direction, a means of covering all the surface of top and bottom street plate except the curved surface with concrete by which forming a colum as a foundation of a constructure, a means of applying convex curved surface with a foundation of a construction by bolts and nuts, a means of mounting a aligning frame for said steel balls on a periphery of said concave—curved surface to allow said balls to move freely, a means of isolating the linkage of earthquake motion to the structure by unified

Application Number; 10/084, 072
Group Art Unit Number; 3635
Filing date; 02/27/2002
Name of the examiner who prepared the most recent office action;
Mr. MCDERMOTT, KEVIN
Title of invention;
SUPPORT STRUCTURE FOR ISOLATIONG EARTHQUAKE MOTIONS

simultaneous rolling of said two types of balls interposed between said foundation pressure—
receiving upper surface steel plate and oppo—
siting pressure—applying bottom and steel plate surface of said colum.

2. A support structure for isolating earthquake motions as claimed in claim 1, a means of moving the structural colum vertically by foundation pressure—receiving curved surface thereby stop the propagating movements by shock absorber effect of spherical level difference (energy generated) by which isolating the earthquake motions and stopping the free movement.